

Title (en)

Telemetry system with signal booster for digital data transmission through a transmission line.

Title (de)

Fernmesseinrichtung mit Signalerhöher für digitale Angabenübersendung durch Übertragungslinien.

Title (fr)

Système de télémétrie avec élévateur de signal pour transmission de données numériques à travers une ligne de transmission.

Publication

EP 0306059 A2 19890308 (EN)

Application

EP 88114767 A 19821105

Priority

US 32359981 A 19811120

Abstract (en)

A telemetry system for sensing remote physical events and for transmitting and boosting a digital data signal representing the sensed events on a transmission line, which comprises a master clock and a plurality of sensing stations for sensing local data. The sensing stations inject local data onto the transmission line as a digital data signal, and a controller/receiver receives the digital data. The master clock initializes the system timing and generates a sync signal. Each sensing station includes a booster subsystem for receiving the local digital data and for injecting the digital data onto the transmission line as a digital data signal. During system start up, each booster subsystem claims a slot, in accordance with an organisational process, for injecting the digital data signal onto the transmission line. The booster subsystem in each sensing station further includes a booster circuit for boosting the digital data signals which are propagating on the transmission line, as well as the sync signal. The booster circuit comprises a negative impedance bistable device for enhancing the amplitude and rise time of the digital data signal. Each booster subsystem further includes a switching mode regulator circuit for conveying a supply current on the transmission line to a level voltage, thereby providing local power to the components of the sensing station.

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IPC 8 full level

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